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ABSTRACT

With the Seeing and Thinking Mathematically materials, students learn mathematics by doing mathematics, by using and connecting mathematical ideas, and by actively constructing their own understandings. In this unit students learn to see probability through a mathematical lens by exploring and creating games and simulations and by applying the concept of probability to events from their own lives. In Section 1, "Introduction to Chance," students conduct probability experiments to analyze a variety of games played with coins and number cubes, explore the variability of results, and describe and rank the likelihood of real-world events. Other sections include: Section 2, "Spinner Games: Multiple Representations of Probability"; Section 3, "Fair and Unfair Games"; and Section 4, "Simulations: Using Probability to Model Real-World Events." In a final project, students design their own simulation of an activity of their choice. Appendices include writing activities, sample student projects, and reproducible blackline masters in both Spanish and English. A schedule of lessons, instructions for teaching the lessons, a description of computer software, a list of materials to obtain, and suggestions for assessing students' progress are also included. (Contains 7 references.) (MKR)

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